

BARG Newsletter May 2025

Ballarat Amateur Radio Group Inc. #6953T
May 2025 Monthly Newsletter
Next General Meeting BARG inc
11:00am, Saturday 31st May 2025
At the Airport - All Welcome



Contacting us
BARG@BARG.ORG.AU

We're on the web.

www.barg.org.au

https://twitter.com/vk3_barg

<https://www.facebook.com/groups/VK3BML/>



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Front Page; BARG Photo Archive. Field Day March 2005.

Times and dates of nets as below

Club Nets: VHF NET: Every Tuesday Night at 8 pm on 146.750 MHz - VK3RBA

HF NET: Every Thursday Night at 8 pm on 3.608 MHz - VK3BML

6m NET: Every Tuesday Night at 8:30 pm on 53.650Mhz RX / 52.650Mhz TX - FM with a 91.5 tone - VK3RWU

LINKED REPEATERS: *The local VK3RBA-70cm repeater on Mt Buninyong is part of a network of linked repeaters covering North-Western Victoria.*

Access details for this repeater have recently changed.

For full details of this linked network and access details see <https://www.qrz.com/lookup/vk3rba>

You can listen to the system live <http://vk3rba.dyndns.org:441/>

This linked system may be accessed via IRLP node 9503

BARG inc. OFFICE BEARERS

President	Ben Daniel VK3NRD	Ordinary Member	Tom George VK3DMK
Vice President	Colin Consiglio VK3NCC	Ordinary Member	Ian Fairweather VK3YFD
Secretary	Peter Westgarth VK3APW	Ordinary Member	Doug Ellery VK3DRE
Treasurer	Chris Huggins VK3QY	Ordinary Member	David Martin VK3KQT
Ordinary Member	Craig Cook VK3KG	Ordinary Member	Mal White VK3OAK
Ordinary Member	Paul Black VK3TXR		

The Next BARG General Meeting **Saturday 31st of May 2025 11:00am**

The BARG Annual General Meeting **And General Meeting** **Saturday 30th of August 2025 11:00am**



If you have any stories, projects, journeys that we would find interesting.

Anything topical to Amateur Radio, electronics, operating gear, communications, history, photographs.

Just a few lines and if possible some pictures will be a good start to a suitable article

Email to tomvk3dmk@gmail.com

The Newsletter needs you!!

Looking for some member(s) to take on the task of providing answers to some old exam questions for publication in the newsletter.

They can be typed, drawn, thumbnail dipped in tar, most legible formats that can be scanned and presented as interesting answers to AR technical questions from older exam papers.

PS. You don't have to tell us if you used ARRL or RSGB Handbook to find the answers.



JUNE 8th 2025

Mount Gambier SA

***SERG Annual Convention & Dinner – Sun 8th, plus the
Australian Fox-Hunt Championship Sat 7th & Sun 8th***



***Scout Hall, 3 Margaret St.
Mount Gambier South Aust***

Trade displays, home-brew
competition, trading tables,
Sunday night dinner (bookings
required)

www.serg.org.au Email bookings to sergconvention@gmail.com

The moon is more useful than the Sun
since it gives us light during
the night, when it is dark.



The Sun shines only in the
daytime, when it is light already.

Learning CW – A Beginner's Journey

Contributor James, VK3JFR

For the past month, I've been learning Morse code from scratch and have already made many contacts across Australia and even beyond! With CW no longer a requirement for getting on HF, many people are rediscovering it—not out of obligation, but because it's genuinely fun.

I began my journey using the *Morse Mania* app, working through the levels from easier letters to more challenging ones. I also found the *Slow Morse Code Course* playlist on VK3ACU's YouTube channel incredibly helpful.

In my experience, the best advice is to get on the air as soon as you're comfortable with the letters and numbers. Making real contacts—even at QRS (slow) speeds—is highly motivating. I've been joining in on Tuesday QRS nights, where operators intentionally slow down for each other, creating a welcoming space to build skills and friendships with fellow learners.

I recently participated in the Don Edwards Memorial Slow Morse Contest. Although turnout was modest, I was thrilled to make six contacts. I'm looking forward to continuing my CW journey, building instant character recognition, and making even more great contacts along the way.



Cheers, James VK3JFR

24 Hour IARU HF World Championship

The 24-hour IARU HF World Championship starts at 12 HUNDRED UTC on Saturday 12 July and ends at 11:59 UTC on Sunday 13 July.

This annual contest supports amateur self-training in radio communications, improving operating skills, conducting technical investigations and inter-communicating with other amateurs around the world using the 160, 80, 40, 20, 15, and 10 metre bands.

<https://www.arrl.org/iaru-hf-world-championship>

VK Shires Contest 2025

VK SHIRES 7th - 8th June 2025

Contest Introduction

Held the Saturday and Sunday of the weekend prior to the second Monday of June every year.

Starts: 00.00 UTC Saturday Ends: 23.59 UTC

VK Stations work VK Shires and CQ Zones whereas international stations only work VK Shires

Contest History

The VK Shires evolved from the VK4 Jack Files Contest (also a Shires based contest) and took that contest to a national contest.

<https://www.wia.org.au/members/contests/wavks/>



VHF UHF Winter Field Day June 2025

Contest Manager Roger Harrison VK2ZRH.

Winter 2025 Saturday 21st June through Sunday 22nd June

The Field Days provide VHF-UHF operators with the opportunity to "head for the hills" and see how far distant and how many stations they can work.

The Field Days have separate sections for single and multiple operator stations. The duration of the Field Day is 24 hours, but there are also 8-hour sections for operators who may not be able to camp overnight.

All contacts must be simplex: contacts through repeaters or satellites are not allowed. There is plenty of FM activity, but one feature of the Field Days is a high level of SSB activity.

It is possible to do very well with only modest antennas IF you pick a good hilltop. Another option, if your station is easily transportable, is to operate from more than one location during the contest period.

<https://www.wia.org.au/members/contests/vhfuhf/>



New Zealand Straight Key Night 2025

Polish and lubricate that old morse key and enjoy an evening of old-time radio fun.

Straight Key Night is an informal event which honours the roots of amateur radio: Morse Code sent with a straight key (no bugs, sideswipers, keyers or keyboards).

Winter SKN is the second Sunday in June, 8-9pm NZ time

Band

80m (3.5 MHz)

Mode

CW sent with a straight key (no bugs, sideswipers, paddles or keyboards)

Rules

<https://zl1.nz/new-zealand-straight-key-night/>



YOTA Contest 2025

The contest aim is to increase youngsters activity on the air, strengthening the reputation of the YOTA program and demonstration of support for youngsters across the world.

2nd round: 19th July 10-22 UTC; 3rd round: 29th Dec 10-22 UTC

Participants:

Every amateur radio operator in the world, accepting these contest rules linked here;

<https://yotacontest.mrasz.org/rules/english>

YOTA: defined by IARU (International Amateur Radio Union), any youngster ≤ 25 years old.

Bands: 80m, 40m, 20m, 15m, 10m Modes: CW and SSB.



Jules' Workshop

The WIA Education Committee, [Learn about Wireless](#) has updated their Training Resources, [Become a Radio Amateur](#), on EMR Compliance Training.

This material refers to Schedule 1 of the Amateur Class Licence regulation.

Jules Workshop was also updated to reflect these changes at [Jules' Workshop Regulations](#).

Other minor errors were also amended in this release of Jules Workshop.

Hope you all find this material useful in your licence studies.

Also, check out the Wyndham Club's pending auction on 12 July [Auction](#)

Cheers, Jules VK3JFP

www.julesworkshop.net

Support our veterans.



Battery Box

Contributor; Peter VK3APW

This battery box, is not what I set out to build. What I started to do, was find an 'ammo' style box that would house one 20AH LiFePo4 battery. They come in two sizes, too big and too small. While looking at the Easter specials in the cheap auto shop, I spied the yellow case that would house two batteries comfortably, and as they say the rest is history.

The battery box is intended to power portable microwave transverters, and/or a transceiver up to 20W. It has 2 x 20AH LiFePO4 batteries, a built-in solar charger, and an Anderson Powerpole distribution box, purchased as a kit, from the Waverly Amateur Radio Society in Sydney.



<https://vk2bv.org/home/projects/powerpole-distribution-box/>

A digital ammeter shows current drawn by the load. The other part of the kit is a 50W fold up solar panel.

The two batteries are wired individually, so only one battery at a time, will power the equipment. Likewise, the solar panel will only charge one battery at a time. The WARS power box, offers multiple 12V connections, monitors voltage and provides USB charging, if required. Pulling the last fuse out, removes power to the USB.



Charging is via the solar MPPT regulator. A laptop power supply, current limited to 3A, will charge the batteries via the mains, and a boost regulator will charge the batteries, from a nominal 13.8V supply. Having everything housed in one box, should make it less likely to turn up on site, and find the power lead for the radio is still in the shack. The bright coloured box, is unlikely to be mistaken for other cases, or be left behind.

73. Peter VK3APW

Review of the Radio and Electronics School

Contributor. Robert VK3VKL

res.net.au

STANDARD CERTIFICATE MULTIMEDIA COURSE

As stated in the course outline, the RES Standard Certificate Course 'is designed to get you through the Standard Amateur Radio Operators Theory and Regulations exam in the shortest possible time with the least amount of effort.

This is achieved by following the syllabus content closely and only giving you extra theory when that is necessary for understanding.'

As someone who started off in radio last year with quite a limited knowledge of radio and electronics and who recently took and passed the exam to get from Foundation to Standard, I can certainly vouch for the validity of this description. Without the course, it would certainly be extremely challenging for someone like myself to be able to pass the exam, especially given the demise of radio courses run by local amateur clubs.

At a cost of only \$30 the course is very reasonably priced. Essentially it consists of a large Zip file with, for the most part, multimedia files, though there are extra documents and images for additional assistance.

Once you have the files, you are ready to begin, and you set your own pace.

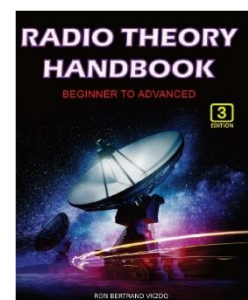
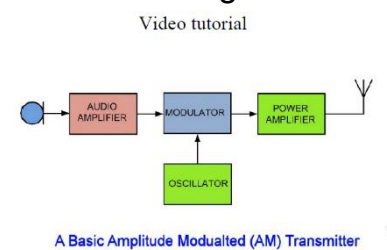
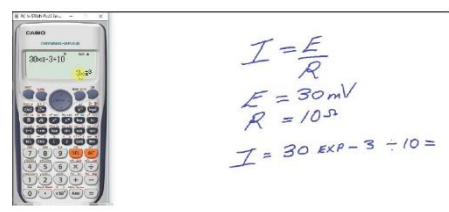
The course consists of 30 video theory tutorials with 24 accompanying theory drills (self-tests) and 25 (mostly very short) Amateur Regulations 'walk-throughs' with 5 accompanying drills (self-tests).

The core of the course is, of course, the 30 tutorials. In them Ron Bertrand (VK2DQ), rather in the style of a lecture (but always with slides on screen), takes you through everything you need for the Standard exam. For example, there are tutorials on basic electronics (e.g. separate tutorials on capacitance, inductance), resistor codes, antennas, propagation, SSB and FM, and, lastly, safety. You should allow about 1-1.5 hours for each tutorial, including time to do the drills, something which should most definitely not be postponed until a later time: it is essential to consolidate everything you learn before moving on to the next topic.

Generally I found that the course provides a very effective way to learn, though it does require quite a lot of motivation and self-discipline. The topics are very well explained and there is always just enough information without going into too much detail. At the end of each tutorial you are taken through the drill questions and the answers are highlighted and briefly explained on the screen.

One thing I found somewhat perplexing was that this was done 'on the go', with Ron Bertrand answering his own questions without notes. There are in fact a couple of mistakes, and this can be a bit disconcerting, especially when you think you have understood something.

I would definitely recommend that anyone taking the course buy Ron Bertrand's book 'Radio Theory Handbook'. Much of the material in the book



corresponds to that in the tutorials, but it is sometimes good to be able to read it in order to fully understand it.

It is certainly not a criticism of the course, but it is, of course, quite difficult for many of us to find 1-2 hours for study of this kind on a daily basis, and I did find that I would vary between a few days of high activity and days or even weeks of not being able to find the time or motivation to do a tutorial during the evening.

One thing which I did later on was to play the tutorials at 1.5 speed, which actually focused my attention better and helped me psychologically to get through the remaining tutorials much more quickly.

In fact, I found that I could often get through two tutorials in an evening in this way. As Ron Bertrand speaks quite slowly, this really is not a problem.

While the theory tutorials and drills are the strong point of the course, I would have to say that the tutorials on the Regulations are rather weak and poorly prepared, but the drills are excellent and certainly worth doing. A better resource is available at <http://vkregs.info>. The Regulations are not theoretical or particularly complex, and simply need to be memorised, but it is important for students to be able to see clearly what is required of them in the exam.

All in all, however, I would strongly recommend this course for anyone who wants to gain their Standard Certificate. Not only does Ron Bertrand know his subject thoroughly, but he is also able to explain things clearly and methodically.

It was also a welcome addition that he and his colleagues at the RES were always helpful and very quick to reply to any questions by email.

For anyone who has their Foundation licence and needs encouragement to get the Standard licence, it's really worth trying the RES course. In 2-3 months you could be ready to sit the exam. If I can do it, anyone can!

73 Robert Lagerberg, VK3VKL



Youth Group Net on the Link System

"Youth Group Net" is now official on VK3RBA link network.

At 0900UTC to 0930UTC Sunday nights 7:00pm to 7:30pm AEST



If you are on air, listen for this net and join in if you like.

<https://www.ham-yota.com/>

Log from past nets;

11/5/25

VK3JFR James Youth op

VK3XEM Simon

VK3KFM Kev

VK4AHA Sam Youth op

VK4MCW Mat

VK4IKZ Izaac Youth op

18/5/25

VK3JFR James Youth op

VK4AHA Sam Youth op

VK4IKZ Izaac Youth op

VK3XEM Simon

VK3SRC Joe and Julie

VK3BKO Brendan

VK3HOR Ben

25/5/25

VK3JFR James Youth op

VK4AHA Sam Youth op

VK3HOR Ben

VK3XEM Simon

VK4IKZ Izaac Youth op

VK3SRC Joe and Julie



CQ International Dog Day August 26 2025

Contributor Caryn Eve Murray KD2GUT

When a group of radio operators begin calling “**CQ International Dog Day**” in August, they’re not just looking for QSOs.

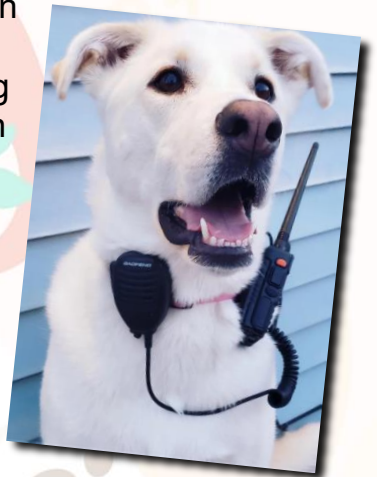
They are in search of people who have room in their hearts to help the abandoned, abused and homeless dogs around the world in whatever way they can. These dozen or so special event operators know the power of rescue because they’ve been deeply involved in it themselves: Hanz YL3JD and his wife opened their home – first in Holland, later in Latvia – and have given needy dogs a second chance at a new family. In Australia, and later in Germany, Ed DD5LP and his wife discovered – several times – that their household was incomplete without canine company. Many of the other operators’ rescued dogs were adopted after hard lives on the street; others were at the pound, hours away from being euthanized.



International Dog Day (and in the US, National Dog Day) is August 26 every year. The tradition was created by US pet advocate Colleen Paige as a day to recognise the needs of society’s unwanted and cast-off dogs and affirm the commitment to adopt, donate or raise awareness of their special needs.

Hanz amplified the original message by adding an amateur radio component in 2022, taking the special-event callsign YL1DOG and operating as a single station. The following year he was joined by Chris, G5VZ, and David, G4YVM, in the UK. By 2024, a team of eight US rescue-dog advocates, operating as K2D, had come on board. This year is the biggest yet, as hams in Germany and other countries run with the pack. All operators will be looking to hear from dog-lovers and supporters in either CW or SSB on HF, on VHF/UHF simplex, or via DMR and Echolink.

The international team has added incentive certificates, including special endorsements such as “Full Kennel,” the equivalent of a clean sweep. Their website, dogdayradio.org, is updated regularly with the operators’ special-event callsigns, their operating schedules, a chance to meet the dogs who inspired them and hear their stories.



In case you are wondering where the cats are – well, they’re running ahead of the dogs! International Cat Day, 8th August 2025, will be operating as a separate event, two weeks before the Dog Day operators get on the air – and they will be carrying a similar message for cat-rescue awareness. See <https://catdayradio.org/> and <https://dogdayradio.org/> for details.

For live updates of both events, to search for the different callsigns, to see the operators’ schedules or to apply for and download award certificates visit these links when they become available:

<https://hamlog.online/icd> and <https://hamlog.online/idd>

Meanwhile, be aware that all special-event operators will be working like dogs – and why not? – because they want to hear and share as many rescue stories as they can.

Cheers, Caryn Eve Murray KD2GUT

Wyndham Amateur Radio Club Auction

12 Noon on 12 July 2025 at 25 Muirhead Cres Werribee, Victoria.

This auction is provided by WARC on behalf of the widow of a Silent Key. Geoff Robison VK3AFL

There are 150 fantastic and useful lots to be sold.

A flyer is available [HERE](#)

There is **no buyers commission** on any of the lots offered. The price you bid is the price you pay.

Several high value items have a Reserve. This value must be reached to complete the sale.

Bidding Increments		
Minimum opening bid \$5		
Between		Bid
\$5.00	\$20.00	\$1.00
\$20.00	\$50.00	\$2.00
\$50.00	\$100.00	\$5.00
\$100.00	\$500.00	\$10.00
\$500.00	\$1,000.00	\$20.00
\$1,000.00	UP	\$50.00



A **catalogue** of the lots can be viewed [HERE](#) UPDATED with additional items at 110.

A down loadable copy of the catalogue, with pictures is available [HERE](#).

A catalogue without pictures is available [HERE](#).

If you are unable to attend in person, no worries, you can register for external bidding by completing and returning the external bidding form.

The form is available [HERE](#)

A person will make the bids on your behalf usually starting at a lower value than your maximum bid value. You may win the item with a lower bid. Once your maximum bid value is reached, no further bids will be placed on your behalf.

Preferred payment method will be by card on the day or EFT for external bidders.

Come along and support this event.

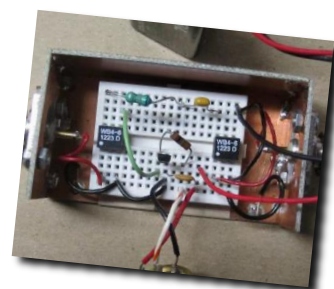
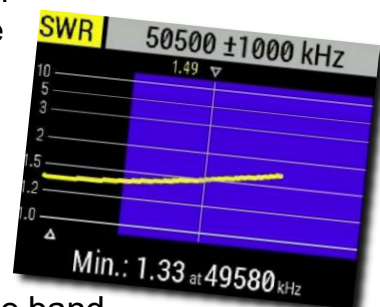
Lot viewing and a \$2 sausage sizzle will be available at 11 AM before the auction starts.



Magazine Reviews

QST Review April 2025

- P9. How the ARRL Functions.
- P12. Member spotlight. James Colson K7KQA. Licenced 32 yrs from age 12 years His interest apart from assisting new amateurs is communicating via EME, making antennas and operating 23cm, 1.25m. He supports his 13 yr son and his interest in hobby. A online antique book dealer is his work environment.
- P24. Correspondence. GPS Coords on a mobile phone. QSL'ing and LoTW. The Loop Skyline antenna and feed line connection. Woman in next generation of amateurs.
- P30. A Rotatable Medium Power Dipole for 6Meters. Using aluminium tube stainless steel bolts and a 1:1 balun mounted through an 2"x1.5" electrical box with two "U bolts" size to suit your requirements. The dipole can be tower mounted or on its own pole mounted on a fence/shed. The six meter band is one that surprises all as its not height that dictates conditions but propagation improvement once six meters opens up. Details are given to wind your 1:1 Balun and rated to 500W of SSB if using RG316 or even RG 58 coax cable.
- The SWR is shown as quite flat across 50.1 - 50.2 part of the band.
- Some tweaking may be necessarily once antenna is in the air as resonance may drop a bit. Be wary when calculating the centre frequency and have an extra few cm on the tubes so that when shortening the elements the frequency will rise. Our band segment covers from 50 to 54 MHz depending what you wish to use. Note that a single element for six meters can easily be used on Field days, mountain top activation, Details are shared for the coaxial feed and a simple RF balun which can handle up to 500Watts on CW key down method.
- P33. Low Cost Tuneable RF Preselector using a1SV149 Varicap diode {0/600 pf} . See also Mar/Apr copy of QEX for an explanation of how it works. , The device covers a range 2xxxxxxx
- P36. Using Open GD77 Firmware to Work FM Satellites. It is FREE firmware and works to your analog DMR radio with doppler tuning satellite data readily. An Australian Amateur, Roger Clark VK3KYY, has developed the OPED GD77 for his Oddity radio so if you have one of these Radio oddities things you will be interested to read this article. www.opengd77
- P38. REVIEW. CFT1 Five Band CW Field Transceiver. Covers 40, 30, 20,17,15M. Coming as a kit however there's no loudspeaker and no S meter. Running on 12V input the Tx can produce a healthy 8 watts on the low 80M band and 3W on this segment ' The full review is in the magazine. www.hamgadgets.com. Price: CFT1 kit, \$319.95; CFT1 pre-wound toroids, \$30; CFT1 wired and tested, \$399.95.



- P42 Choyong LC90 Multi-Band Smart Radio. Receivers that combine over-the-air broadcast reception with the ability to play audio from internet “radio” sources are not new. However, the Choyong LC90 is one of the first to include shortwave broadcast coverage among its listening options — and do it all in a package just 6 × 1.5 × 4 inches and weighing slightly less than a pound.

Choyong Radio, www.choyongradio.com. Price: \$249.00

See www.wp38.choyongradio.com and available on amazon.



- P45. REVIEW. REZ Antenna Systems Recon 40 portable Vertical Antenna. Is a base loaded antenna capable of tuning 40 meters (whip and radials sold separately). www.rezantenna.com

Price: \$299 (coil only). Complete kits are available with pricing ranging from \$529 to \$549

- P50. Quartzfest Questions. Today's are Counterpoise, Grounding and bonding and NVIS Propagation. There is a simple plan for an 80M dipole but in Inverted V style giving two different angles.

- P52. Microwave` Beacons. A review of a number of different beacons about the US and shows some Raspberry Pies boards for Controller and frequency synthesizer.

- P54. Saving a 30 foot Parabolic dish. The dish was to be scrapped as the owner Ray K0YW was now SK. It took 3.5 days to lift it off the tower and lower it to ground and unbolt all the petals ready for transporting home. A convoy of three trailers removed all pieces and taken to its new home at Deep Space Exploration Society where it will be erected soon and used for study and EME usage, It will also serve as a backup to their 60 foot dish.



- P57. Operating from a Spanish Summit. VE3OMV Maria operated from out of her car. Which of course is not allowed for Parks awards. Still she had a great day and has learnt a few things for her next activation,

- P60. Turn your Vertical Antenna into a Rotatable Beam. An interesting read about using a 2M quarter wave vertical antenna and then sheathing it within a tube of carbon fibre material, Somewhat similar to the design of the “Abe Lincon” antenna tube needs a slot which allows to flux field to compress within but escape from the finely cut slot.

WARNINGS however are given about the gain achieved and not to have the slot facing towards any person. Extreme rf exposure.



- P62, Adventure on the Ohio and Erie canal.

- P65. The IARU now a 100 years of service to amateur radio. An interesting short treatise on the union for newcomers to see and understand how amateur radio has progressed in that time and with some 170 member nations . The article may be a bit more ARRL oriented but the historical facts still remain same.

ARRL Board approves By-Law changes and establishes a New committee.



- P84. HamRadio Playlist 24-7. www.youtube.com/@Ray-W2RE younger people and

Helps

also runs his own YouTube site from where we can watch some interesting things to do with towers and installations on them. See <https://tinyurl.com/w2re-tower> with Rays camera up to 75 feet off the ground.

Then see how to build a tower at <https://tinyurl.com/w2reequipment>.

P86. How's DX? HC8 — The Galápagos Islands

P88. World above 50 MHz. Jan 6m openings F2. FT8 Harmonics and rare grids on the air.

P96. QST for May 1975. Topics included: SSTV in use long before computers. Modify CRO's and TV screens for SSTV. Memorialise one amateurs legacy. Marvin W7AE. Who was your mentor in radio?

P98. Classic Radio: HeathKit GR-81 SW receiver. An economy radio. A regenerative three valve radio [using modern peanut tubes] in 1961 it was \$314 US as a kit set. Coverage was 140kHz to 18MHz in four switched bands, Being a regenerative receiver there is a technique to its operation. Too much regen produces squeals and instability. For best sensitivity adjust the regen control to the oscillation point and then back it off till oscillation ceases.

P100. 100, 50 and 25 years ago. A great way to read the index for an interesting article without having the magazine in one hand.

P126. QST Index of Advertisers.
Thus the end of the April edition.



QST Review May 2025

P9. Second Century, The CEO remembers his old friend Bob who became a SK in 10 Feb 2025. Vale Bob [W5OV} A friendship that started in high school and led both men to one day be employed at the ARRL office together. Bob was a very strong person and would inject the desire into others to become involved in our hobby.

Is there a amateur in your life that you can say is a close friend but very

P13. Member Spotlight. Tony N7DX, Licenced as a teenager he had passed from the concept of building crystal set and finding how it worked then into HeathKit GR-64 SW receiver and best friend Dan KB7RYY they moved into clubs, competitions and award chasing using CW especially. Academically he graduated from University of Washington with bachelor's degree in Electrical engineering he worked for FLUKE Corporation .in hardware design and software control. Updating and then studied for his next University degree in Software control degree'



P24. Letters from members covering subjects such as “early memories” of QSL cards on the wall and having some real meaning compared to today's QSLing concepts. Solar update appreciation.

P33. A PORTABLE 10M Antenna. Using so RG58 coax, a foot of white PVC drain pipe material and one insulator with a length of wire about {100 " of #18 insulated wire } and a couple of heavy duty cable ties' These are used to hold the coaxial cable to the form tightly.



P34. Build a newer design DC Power supply. This one has a polarity check sum inbuilt

allowing one of two coloured LEDs to activate depending whether

P39. REVIEW. Pacific Antenna KD1JV Tri-Bander CW Transceiver. This little CW transceiver is both lightweight and packed with features for the cost. It is easy to build, comes with good-quality components, and would make an excellent QRP rig.

P43. A New ROTATOR from DX Engineering. The RT4500HD and a three page review/discussion about it and its operation. A heavy duty device it will turn more than 25 square feet of loaded antennas and up to 1 ton vertical down thrust load to within 0.1 degree accuracy.

Unlike many other rotators with a potentiometer positioner, or the old tried and true mag-slip transformer/motor combination the motor here is a 24V dc at 4A rated and is fed by a pulsing system from the controller. 4,814 pulses produces one revolution. [refer the installation manual]



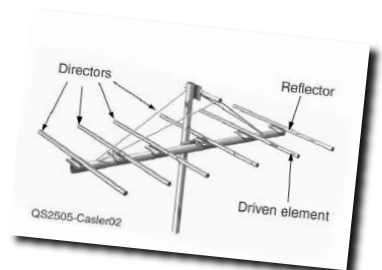
That equates to 1 revolution being equal to 360 degrees and is about 13.4 pulses per degree. There are other options for the controller such as the Green Heron RT-21 or even a home brewed design using the Arduino based concept.

WARNING. Though there are NO stops and Pulse counting is important to save on twisting cables at end of a rotation. Lightning strikes nearby have been known to affect the pulse counting stream and occasionally calibration needed.

See the manual in PDF format But be aware the cost is US \$2569.

P51. Ask Dave, also see the QST YouTube playlist. <https://bit.ly/3z2MBMI>

Matching Antennas very important when tuning Non Resonant antennas. A random antenna may need to be “adjusted” by adding or subtracting capacitance or inductance so that the transmitter sees a correctly matched load. [ie 50 ohms resistive.] and no reactance. The feed line is also part of the antenna and needs consideration. Maxwell's power transfer theorem is very much applicable. Max power out when antenna/transmission line impedance = impedance of the transmitter.



Another way to match transmission line to a dipole has been done for many years with VHF/UHF antennas and that's the GAMMA match method. The GAMMA is an inductive sleeve parallel to the dipole and fed with a series capacitor as shown in Fig 3. But in practice this can be simplified as a series L/C circuit and tapped up a set distance from the dipoles centre point.

The variable cap can be replaced by a fixed value cap [or using a length of coax and knowing its C/metre value] then it's only a matter to adjust the length of the inductive arm to reach match point.

- P53. Hints and Kinks, Using a Laser engraver, some tips and using a 10metre mobile antenna on the 6metre band. www.inkscape.org www.lightburnsoftware.com
There is some safety control required in using Lasers,
- P55. NASA radio clubs are on air Celebration of the OSCAR1 sat that was the first Amateur built and flown satellite. Also Owen Garret W5LFL the first amateur to Operate an amateur station from space. There is a long list of NASA club stations and participants are asked to send logs to www.nasaontheair.wordpress.com although its not a competition to work ALL the NASA club stations.
- P58. The Newport Antenna Shootout. A chance for ops to show of and compare their best results. Organised as a two purpose activity to 1. Show off individual field antennas. 2, To encourage newer members to field day operating. In June 2023 there were six participants present,
The rules for the competition are given and they use signals from the Reverse Beacon Network to assess scoring.
Www.reversebeacon.net
- P61. POTA Italia. Two international POTA activations made possible with the help of a friend.
- P64. The Transcontinental NBEMS Net. Digital HF modes for transmission of FORMS based messages. Formed in 2023 from a number of NBEMS mailing lists across a number of counties in training for emergency communications. Listen on 7068kHz on Tue at 2100EST and 14068kHz [US time zones] Centre on the 1500Hz {you centre on the Net Control Station} using Olivia 8/500 version 2,211 or higher.
- P67. The ARRL Ham radio Equipment Insurance plan. Interesting to have a read and consider how your amateur gear should rate amongst your home insurance policy. Has the ARRL produced a great idea for amateurs.? Would that work here now.?
- P71. Public Service. The Genius of POTA for EmComm Prep.
- P82. Club station. How to get involved in Public Events.
- P84. On line resources for New Hams, Also se www.youtube.com/@hamradiomadesimple one of the first videos is about "being mic shy" hand held see <https://tinyurl.com/HRMS-digital> and also about upgrading a rig see www.youtube.com/@davecasler channel or <https://tinyurl.com/Dave-upgrade>
Theres also a video there for getting a cable from outside to inside a shack. Have a good look here.
- P86. How's DX visit AU2V on Sacrifice Rock an IOTA activation. Feb 7 to 10 this year using AU2V just south of India with two stations being set up.
- P88. World above 50Mhz. WSJT-X Q65 for Microwave Tropospheric contacts and second peak follow up
- P91. Lists upcoming Special event stations.
- P96. New books. Lightning Protection by N0AX is a 125 page book for US \$30 soft cover from www.wrblock.com plus mail.



P97. Celebrating our legacy. QSL card resurfacing , and memories of home construction using 1976 vintage 38th Radio Amateurs Handbook and using a valve called 6DQ6A beam tetrode as an oscillator amplifier and giving 30watts RF out.

P98. Classic Radio. The DENTRON Odyssey. Founded 1974 and absorbed in 1982 by All Star Products. List some various rigs here.

P100. 100, 50, and 25 years.

Magazine still provides plenty of reading and also the adverts are still a heavy read thru even if not actually buying.

73 for the month.

Craig VK3KG



Silicon Chip Review May 2025

P12. Digital Scent & Taste, electronic noses and tongues. David VK3DSM. A look and and discussion of the current technology allowing electronics to monitor the things we humans take for granted. Electronic sensors and a brief history of smell-o-vision.

P24 Versatile Battery Checker. Tim Blythman. An upgrade from the previous version, this tests SLA, LiPo versions, 9V and D, C, AA, AAA batteries with an OLED display.

P34 Electronex 2025. A primer to this major event with listings of participants and their products.

P58. Tool Safety Timer. Phil Prosser. A timer to turn off the gear you usually forget to turn off, or due to inactivity, to be powered down. A simple press button then resets and powers your devices up again.

P66. RGB LED "Analog" Clock. Nicholas Vinen. Using different coloured LEDs to show seconds, minutes and hours it can be GPS or NTP connected for timing accuracy.

P78. USB Power Adaptor. Nicholas Vinen. A series of PCB to help configure your USB need with all the different connectors and power systems that now exist.

P82. Microchip's RNBD451 Bluetooth Module. Tim Blythman. Explores the new Microchip product and its various functions and how to talk with it.

P88. Precision Electronics. Part 7: Analog-to-Digital Conversion. Andrew Levide. Tells us of the many ways ADCs work, their advantages and disadvantages and how to design using them.

P96. Circuit Notebook. Digital voltmeter to ammeter conversion. Night Alarm to check if a door is open. Automatic op-amp offset nulling.

P98. Serviceman's Log. Radio National transmitter. MIG welder. Cablig. Toy skating pond. Car antenna.

P104. Vintage Radio. Emerson 888 mini-mantel set (UK). A small solid state radio from the mid 1960's. A six PNP transistor circuit on a printed circuit board with LW and MW coverage.





Ballarat Amateur Radio Group Inc
Registration Number A0006953T
ABN 44 247 200 143
Application for Club Membership

This completed document should be emailed to the Secretary at BARG@BARG.ORG.AU, or brought along to a face to face meeting.

Surname: _____ Given Names: _____

Callsign: _____

Are you a financial member of WIA?: Yes No

Partner's Name: _____

Residential Address: _____

Postcode: _____

PostalAddress: _____
(If different to above) Postcode: _____

Telephone;
(Work) _____ (Home) _____ (Mobile) _____

EmailAddress _____

Unless otherwise requested, Newsletters and Club information will be sent to your email address. If the Club decides to publish a Club Directory, are you willing to have the above information included? Please indicate: **Yes No**

By applying for membership I indicate my support of the purposes of the Association and agree to comply with the Association rules in effect.

Applicant's Signature: _____ Date: _____

Proposed By: _____ Callsign: _____ Date: _____

Seconded By: _____ Callsign: _____ Date: _____

--ooOOoo--

Presented to Committee: _____ Decision: Accept / Reject

Fee Paid: \$ _____ Date: _____ Receipt No(if applicable:) _____

Entered into Membership Register: _____ Secretary: _____